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IN THE CLAIMS

Rewrite claim 1 in amended form as follows: TECH CENTER 100-724-9

*Sub c1*  
1 (Amended). A method for prolonging the *in vivo* effect of Type I interferon (IFN), comprising:  
administering to a patient in need of Type I IFN therapy a complex of Type I IFN and a subunit of the human interferon  $\alpha/\beta$  receptor (IFNAR) which is capable of binding to the Type I IFN of the complex, in an amount effective to provide such IFN therapy,

wherein said Type I IFN has a sequence consisting essentially of the sequence of

- B* a) a native Type I IFN;
- B* b) a fragment of a) which has Type I IFN biological *agonist* activity;
- B* c) a variant of a) or b) which has at least 70% sequence identity with a) or b) and which has Type I IFN biological *agonist* activity;
- B* d) a variant of a) or b) which is encoded by a DNA sequence which hybridizes to the [compliment] complement of the native DNA sequence encoding a) or b) under moderately stringent conditions and which has Type I IFN biological *agonist* activity; or
- B* e) a salt or functional derivative of a), b), c), or d) which has Type I IFN biological *agonist* activity; and
- wherein said IFNAR has a sequence consisting essentially of the sequence of
- f) a native human IFNAR polypeptide chain;

g) a fragment of f) which has IFNAR biological activity;

h) a variant of f) or g) which has at least 70% sequence identity with f) or g) and which has IFNAR biological activity;

i) a variant of f) or g) which is encoded by a DNA sequence which hybridizes to the [compliment] complement of the native DNA sequence encoding f) or g) under moderately stringent conditions and which has IFNAR biological activity; or

j) a salt or functional derivative of f), g), h), or i) which has IFNAR biological activity.

with the proviso that when said Type I IFN and said IFNAR are administered separately and said complex is formed in vivo, the amount of IFNAR administered is an amount effective to prolong the in vivo effect of the Type I IFN.

Claim 10, line 15, replace "compliment" with --complement--;

line 29, replace "compliment" with --complement--.

Claim 21, line 4, after "bond" insert --in a pharmaceutically acceptable formulation--.

Claim 22, line 1, change "comprising" to --consisting essentially of--;

line 15, change "compliment" to --complement--;

line 29, change "compliment" to

--complement--.

Claim 23, line 17, change "compliment" to

--complement--.

Add new claim 24 as follows:

<sup>25</sup>  
~~24~~<sub>26</sub>. A method in accordance with claim 21, wherein  
the pharmaceutically acceptable formulation is non-acidic.

#### REMARKS

Claims 1-24 presently appear in this case. No claims have been allowed, although claims 4-6, 12-14, 18-20 and 23 have been indicated to be allowable if claims 4, 5, and 12 were rewritten in independent form including all the limitations of their respective base claims. The official action of March 27, 2000, has now been carefully studied. Reconsideration and allowance are hereby respectfully urged.

Briefly, the present invention relates to the discovery that a complex of interferon and an IFN binding chain of the human interferon  $\alpha/\beta$  receptor (IFNAR) will improve the stability and enhance the potency of the IFN. The complex may be a non-covalent complex or the IFN and the IFNAR may be bound by a covalent bond or a peptide bond, either directly or through a linker.